

In the Claims:

1. (Cancelled)
2. (Currently Amended) The MOS transistor of Claim 6,[[1,]] further comprising an insulating gate spacer covering the first and second sidewalls of the silicon column portion of the inverted T-shaped gate electrode, wherein the second lightly-doped drain region and the second lightly-doped source region are under bottom portions of the insulating gate spacer.
3. (Original) The MOS transistor of Claim 2, wherein the heavily doped drain region is adjacent a first outer sidewall of the insulating gate spacer and wherein the heavily doped source region is adjacent a second outer sidewall of the insulating gate spacer.
4. (Currently Amended) The MOS transistor of Claim 2, wherein a bottom surface of the insulating gate spacer is on a-the curing thermal oxide layer.
5. (Cancelled).
6. (Currently Amended) A MOS transistor comprising:
an inverted T-shaped gate electrode on a substrate, the inverted T-shaped gate electrode comprising a silicon base portion and a silicon column portion extending from the base portion, the silicon base portion and the silicon column portion doped with a same dopant material, the silicon base portion of the inverted T-shaped gate electrode including a first lateral protrusion extending laterally beyond a first sidewall of the silicon column portion of the inverted T-shaped gate electrode and a second lateral protrusion extending laterally beyond a second sidewall of the silicon column portion of the inverted T-shaped gate electrode;
a drain region in the substrate comprising a first lightly-doped drain region under the first lateral protrusion, a second lightly-doped drain region that is deeper than the first lightly-doped drain region adjacent the first lightly-doped drain region, and a heavily-doped drain region adjacent to the second lightly-doped drain region;

a source region in the substrate comprising a first lightly-doped source region under the second lateral protrusion, a second lightly-doped source region that is deeper than the first lightly-doped source region adjacent the first lightly-doped source region, and a heavily-doped source region adjacent to the second lightly-doped source region;

a gate dielectric layer interposed between the inverted T-shaped gate electrode and the substrate; and

~~The MOS transistor of Claim 5, further comprising a curing thermal oxide layer on the first and second sidewalls of the silicon column portion of the inverted T-shaped gate electrode, the first and second sidewalls of the gate dielectric, the second lightly-doped drain region and the second lightly-doped source region,~~

wherein a first sidewall of the gate dielectric is aligned with a sidewall of the first lateral protrusion of the inverted T-shaped gate electrode and wherein a second sidewall of the gate dielectric is aligned with a sidewall of the second lateral protrusion of the inverted T-shaped gate electrode.

7. (Currently Amended) The MOS transistor of Claim 6, wherein the further comprising an insulating gate spacer is on the curing thermal oxide layer.

8. (Original) The MOS transistor of Claim 7, further comprising a spacer etch stop layer interposed between the insulating gate spacer and the curing thermal oxide layer.

9. (Currently Amended) The MOS transistor of Claim 6,[[1,]] wherein the sidewalls of the first and second lateral protrusions are vertically profiled.

10. (Withdrawn—Currently Amended) The MOS transistor of Claim 6,[[1,]] wherein the sidewalls of the first and second lateral protrusions are sloped at positive angles.

11. (Withdrawn—Currently Amended) The MOS transistor of claim 1, Claim 6, wherein the sidewalls of the first and second lateral protrusions are sloped at negative angles.

12. (Currently Amended) The MOS transistor of Claim 6, claim 1 further comprising a metal silicide layer on the upper surface of the inverted T-shaped gate electrode, the surface of the heavily-doped drain region and the surface of the heavily-doped source region.

13-53. (Cancelled)

54. (Currently Amended) The MOS transistor of Claim 6,[[5,]] wherein the depth of the second lightly-doped drain region is about the same as the combined depth of the first lightly-doped drain region, the gate dielectric layer and the silicon base portion of the inverted T-shaped gate electrode.

55. (Currently Amended) The MOS transistor of Claim 6,[[1,]] wherein the silicon base portion and the silicon column portion of the inverted T-shaped gate electrode are not selectively etchable.